

Work Order ID 54293-3

December 7, 2009 2:30:57 PM

Item ID: D412-769-043

Revision ID:

Item Name: Aft Facing Seat Assembly, LH

Start Date: 07/12/2009 Start Qty: 5.00

Required Date: 21/12/2009 Req'd Qty: 5.00

Reference:

Approvals: Process Plan:

QC:

Date: 8/12/1

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Setup Start

Stop

Run Start

Stop

Cust Item ID:

Customer:

Sequence ID/
Work Center ID

Operation
Description

Draw Nbr

Revision Nbr

HIN D412-769

Rev B

100

Pick Kit

0.00

Packaging

Memo

0.00

110

Small Fab

0.00

Small Fab

Memo

0.00

Small Fab

1- assemble as per dwg D412-769-1

120

QC5- Inspect part completeness to step on W/O

0.00

QC

Memo

0.00

Quality Control

8/10/12

3

1354318

Work Order ID 54293

December 7, 2009 2:30:57 PM

Item ID: D412-769-043

Accept

Setup Start

Stop

Revision ID:

Item Name: Aft Facing Seat Assembly, LH

Start Date: 07/12/2009 Start Qty: 5.00

Required Date: 21/12/2009 Req'd Qty: 5.00

Cust Item ID:

Customer:

Reference:

Run Start

Stop

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

130



Powdercoat

Powder Coating

Operation
Description

Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3

Set Up/
Run Hours

0.00

M112588

0.00

Memo

1- mask D3782-041 and D3782-043 front legs and D3787-1 foot as per dwg
 D412-769-041 112- install bolts in 3 place (in seat belt eye bolt holes) to ensure
 leg does not move when Powdercoat! 13- Powder coat remainig of assembly grey
 as per dwg D412-769-111 START

Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp

START: 8:00 AM M 10-01-13

Temp: 320°F

FIN: 8:30 AM

(X3)

140



QC

Quality Control

QC3- Inspect Part Finish

0.00

0.00

Memo

BR 10-01-13 (3)

150



Packaging

Packaging

Pick Kit

0.00

0.00

Memo

S 10/01/13

Work Order ID 54293

December 7, 2009 2:30:57 PM

Item ID: D412-769-043

Accept

Setup Start

Stop

Revision ID:

Item Name: Aft Facing Seat Assembly, LH

Start Date: 07/12/2009 Start Qty: 5.00

Required Date: 21/12/2009 Req'd Qty: 5.00

Cust Item ID:

Customer:

Run Start

Stop

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160



Small Fab

Small Fab

Small Fab

Memo

1- install remaining parts as per dwg D412-769-1

0.00

M-L 10/01/14 (2X)
M-L 10/01/18 (1X)

170



QC

Quality Control

QC'S- Inspect part completeness to step on W/O

Memo

0.00

0.00 => S. 10/01/18

Pto

180



Packaging

Packaging

Identify as per dwg & Stock Location: EG

0.00

Memo

0.00

MF 10-1-20

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D412-769-043 PAR #: Fault Category: Small Fabs NCR: (Yes) No DQA: Date: 10.01.28
 Resolution: Scrap Disposition: re-work QA: N/C Closed: Date: 10.01.28

NCR: <u>54293</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10/01/18	2 170	Found at inspection that a D3770-3 was damaged to the PLG It had a series of small dents. R.C. miss handling of parts/LOA	<i>[Signature]</i>	Disassemble D3770-4 to remove D3770-3 D3770-3 + SCRAP Pull D3770-3 from stock add D3770-3 135 1/2 x 1 PLG AS PER Q52005 6714y Sample	ET 10-01-20 10-01-20	S 10/01/28 S 10/01/29	<i>[Signature]</i>	S 10/01/18
		1122588 BATCH <i>[Signature]</i>	<i>[Signature]</i>	TEST 2:45pm STAMP 32097 Pin: 3.75	<i>[Signature]</i> 10-01-19	S 10/01/22	<i>[Signature]</i>	S 10/01/18
			<i>[Signature]</i>	Re Assemble with new hardware 112314 x 2 113524 x 2 110985 x 2 equivalent as per Q52 17	ET 10-01-20	S 10/01/22	<i>[Signature]</i>	S 10/01/18

NOTE: Date & initial all entries

Work Order ID 54293

January 22, 2010 12:42:14 PM

Page 4

Item ID: D412-769-043

Accept

Setup Start

Revision ID:

Stop

Item Name: Aft Facing Seat Assembly, LH

Start Date: 12/7/2009 Start Qty: 5.00

Required Date: 12/21/2009 Req'd Qty: 5.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

10/01/25

Vmf 10-1-27

Picklist Print

December 7, 2009 2:31:01 PM

Work Order ID: 54293

Parent Item: D412-769-043

Parent Item Name: Aft Facing Seat Assembly, LH

Start Date: 07/12/2009

Required Date: 21/12/2009

Start Qty: 5.00

Required Qty: 5.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3-5A		Purchased	No			110	Each	2,043.000	30.0000			
Bolt												

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

2043

100188

188

105055

1855

110

Each

182.0000

10.0000

AN4-15A

Purchased

No

Bolt

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

182

113121

182

110

Each

31.0000

5.0000

AN45-13A

Purchased

No

EYE BOLT

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

31

109712

4

111975

27

3

50 10/01/07

Checklist Print

December 7, 2009 2:31:01 PM

Work Order ID: 54293

Parent Item: D412-769-043

Parent Item Name: Aft Facing Seat Assembly, LH

Comments:

Component Item ID/ Replacement Item ID Mfg/ Purch
Item Name Item ID Purch

AN5-10A



Bolt



Start Date: 07/12/2009

Start Qty: 5.00

Required Date: 21/12/2009

Required Qty: 5.00

Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
			110	Each	132.0000	30.0000		9/12/30	SK

Warehouse Location

Main Warehouse
ST
107013
110363
112314
112933
113149
113255

Loc Qty Loc Code

132	
8	
2	
1	
38	
50	
33	
110	Each
252.0000	10.0000

Purchased No

AN5-11A



Bolt

Warehouse Location

Main Warehouse
ST
104936
108167
110363
112492
112641
113237

Loc Qty Loc Code

252
3
8
14
10
17
200

10/01/07

Shop Packet Print

December 7, 2009 2:31:01 PM

Shop Packet Print

December 7, 2009 2:31:01 PM

Work Order ID: 54293

Parent Item: D412-769-043

Parent Item Name: Aft Facing Seat Assembly, LH

Comments:

Component Item ID/Replacement Item ID
Item Name

AN525-10R24



Screw

AN9601D10



Washer



Start Date: 07/12/2009

Required Date: 21/12/2009

Start Qty: 5.00

Required Qty: 5.00

Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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110 Each 146.0000 45.0000



412538 9/12/30sf
M113538 88 10/01/07

Warehouse

Location

Main Warehouse

ST

109238

Loc Qty

Loc Code

146

146

110

Each

1,965.000 105.0000



9/12/30 sf

Purchased

No

Warehouse

Location

Main Warehouse

ST

105442

109059

109840

110139

110985

111279

111668

112314

112369

113149

1965

8

2

23

2

202

5

64

645

14

1000

63 88 12/01/07

Shop Packet Print

Checklist Print

December 7, 2009 2:31:01 PM

Work Order ID: 54293

Parent Item: D412-769-043

Parent Item Name: Aft Facing Seat Assembly, LH

Start Date: 07/12/2009

Required Date: 21/12/2009

Start Qty: 5.00

Required Qty: 5.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

AN960JD416

Purchased

No

110

Each

2,311.000

20.0000

11/11/3228
9/10/30

sf

11/11/3228

15

8/10/01/07

Washer

WarehouseLoc QtyLoc CodeLocation

Main Warehouse

ST

2311

108161

329

110523

340

111279

101

111916

482

112314

1059

16941

0

110

Each

1,016.000

100.0000



9/10/30

sf

AN960JD516

Purchased

No

Washer

WarehouseLoc QtyLoc CodeLocation

Main Warehouse

ST

1016

110363

46

110523

57

111279

39

112082

64

112314

14

112828

296

113149

500

9/10/30

sf

10/01/07

December 7, 2009 2:31:01 PM

Shop Packet Print

Picklist Print

December 7, 2009 2:31:01 PM

Work Order ID: 54293



Parent Item: D412-769-043

Parent Item Name: Aft Facing Seat Assembly, LH

Start Date: 07/12/2009

Required Date: 21/12/2009

Start Qty: 5.00

Required Qty: 5.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3766-1		Manufactured	No			110	Each	7.0000	5.0000		9/12/30	sf
Front Rail, LH												

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

42872

7

7

110

Each

2.0000

5.0000



Manufactured No

43 8 10/01/07

D3766-3



Rear Rail

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

42873

2

2

110

Each

13.0000

6.0000



Manufactured No

54303 3 8 10/01/07

D3767-1



Upper Rail

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

42874

48488

13

3

10

3 8 10/01/07

Shop Packet Print

December 7, 2009 2:31:01 PM

Picklist Print

December 7, 2009 2:31:01 PM

Work Order ID: 54293

Parent Item: D412-769-043

Parent Item Name: Aft Facing Seat Assembly, LH

Start Date: 07/12/2009

Required Date: 21/12/2009

Start Qty: 5.00

Required Qty: 5.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3782-041		Manufactured	No			110	Each	4.0000	5.0000			



Front Inboard Leg Assembly

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

42839

42840

4

2

2

110

Each

3.0000

5.0000



9/12/30 SP

D3782-043



Front Outboard Leg Assembly, LH

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

46204

3

3

110

Each

4.0000

10.0000



54324 ⑤ SB 10/01/08

9/12/30 SP

D3782-045



Back Leg Assembly

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

42832

42833

4

2

2

8,54328

8 10/01/08

December 7, 2009 2:31:01 PM

Shop Packet Print

Picklist Print

December 7, 2009 2:31:01 PM

Work Order ID: 54293

Parent Item: D412-769-043

Parent Item Name: Aft Facing Seat Assembly, LH







Start Date: 07/12/2009

Required Date: 21/12/2009

Start Qty: 5.00

Required Qty: 5.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ : Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3783-041 		Manufactured	No			110	Each	0.0000	5.0000	 B 54329	③ 10/01/05	
Lateral Brace Assembly D3783-043 		Manufactured	No			110	Each	0.0000	10.0000	 B 54333	✓ ① 10/01/05	
Longitudinal Brace Assembly D3783-045 		Manufactured	No			110	Each	4.0000	5.0000		9/12/05 SP	
Angle Brace Assembly												

WarehouseLoc QtyLoc CodeLocation

Main Warehouse

ST

42852

42854

42855

4

1

2

1

110

Each

4.0000

5.0000



B 54331

③

SP 10/01/05

9/12/05 SP

D3784-041



Seat Support Assembly, Center

Manufactured No

WarehouseLoc QtyLoc CodeLocation

Main Warehouse

ST

45879

4

4

B 54332

③

SP 10/01/07

December 7, 2009 2:31:01 PM

Shop Packet Print

Picklist Print

December 7, 2009 2:31:01 PM

Work Order ID: 54293

Parent Item: D412-769-043

Parent Item Name: Aft Facing Seat Assembly, LH


Start Date: 07/12/2009

Required Date: 21/12/2009

Start Qty: 5.00

Required Qty: 5.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3784-043		Manufactured	No			110	Each	2.0000	5.0000			
												
Seat Support Assembly, LH												

B 54333

③ 10/01/12

Warehouse
Location

Main Warehouse

ST

2

42864

1

42865

1

110

Each

2.0000

5.0000



D3784-044

Manufactured No



Seat Support Assembly, RH

Warehouse
Location

Main Warehouse

ST

2

42867

1

42868

1

B 54334

③ 10/01/12
B

Picklist Print

December 7, 2009 2:31:01 PM

Work Order ID: 54293

Parent Item: D412-769-043

Parent Item Name: Aft Facing Seat Assembly, LH

Start Date: 07/12/2009

Required Date: 21/12/2009

Start Qty: 5.00

Required Qty: 5.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS21042L3		Purchased	No			110	Each	2,759.000	45.0000			

MS21042L3

Nut

WarehouseLoc QtyLoc CodeLocation

Main Warehouse

ST

2759

109798

14

110844

32

111274

27

111668

194

112314

1992

112385

500

110

Each

4,135.000

10.0000

MS21042L4

Purchased

No

Nut

WarehouseLoc QtyLoc CodeLocation

Main Warehouse

ST

4135

110507

184

111827

3951

15924

0

December 7, 2009 2:31:01 PM

Shop Packet Print

Picklist Print

December 7, 2009 2:31:01 PM

Work Order ID: 54293

Parent Item: D412-769-043

Parent Item Name: Aft Facing Seat Assembly, LH

Start Date: 07/12/2009

Required Date: 21/12/2009

Start Qty: 5.00

Required Qty: 5.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN525-10R22		Purchased	No			160	Each	171.0000	65.0000			
Screw												

Warehouse

Loc Qty

Loc Code

Location

K113524

39

SB

10/01/13

Main Warehouse

ST

171

110139

171

160

Each

5,439.000

65.0000

AN9601D10L

Purchased

No

Washer

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

5439

101291

16

104885

153

105793

236

109632

276

110985

4758

160

Each

2.0000

5.0000

D3774-1

Manufactured No

Seat Bottom, LH/RH

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

2

46065

2

B 54311

3

SB 10/01/13

Shop Packet Print

December 7, 2009 2:31:01 PM

Picklist Print

December 7, 2009 2:31:01 PM

Work Order ID: 54293

Parent Item: D412-769-043

Parent Item Name: Aft Facing Seat Assembly, LH

Start Date: 07/12/2009

Required Date: 21/12/2009

Start Qty: 5.00

Required Qty: 5.00

Comments:

Component Item / Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3774-3		Manufactured	No			160	Each	2.0000	5.0000			



Seat Back, LH/RH

WarehouseLoc QtyLoc CodeLocation

Main Warehouse

ST

46066

2

2

160

Each

31.0000

2
10.00002
1

8 10/01/13

D3775-1



Guard

Manufactured No

WarehouseLoc QtyLoc CodeLocation

Main Warehouse

ST

42875

44532

46048

31

1

10

20

160

Each

112.0000

3
15.0000

2 3 21 10/01/13

9/10/30 5/

D3792-1



Seat Belt Eye Bolt

Manufactured No

WarehouseLoc QtyLoc CodeLocation

Main Warehouse

ST

40880

41879

42020

112

17

45

50

3 4 5 8 10/01/13

Shop Packet Print

Picklist Print

December 7, 2009 2:31:01 PM

Work Order ID: 54293

Parent Item: D412-769-043

Parent Item Name: Aft Facing Seat Assembly, LH

Start Date: 07/12/2009

Required Date: 21/12/2009

Start Qty: 5.00

Required Qty: 5.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS21042L3		Purchased	No			160	Each	2,759.000	95.0000		9/10/30	

MS21042L3



Nut

WarehouseLoc QtyLoc CodeLocation

Main Warehouse

ST

2759

109798

14

110844

32

111274

27

111668

194

112314

1992

112385

500

160

Each

750.0000

60.0000



MS21042L5



Nut

WarehouseLoc QtyLoc CodeLocation

Main Warehouse

ST

750

110382

10

111636

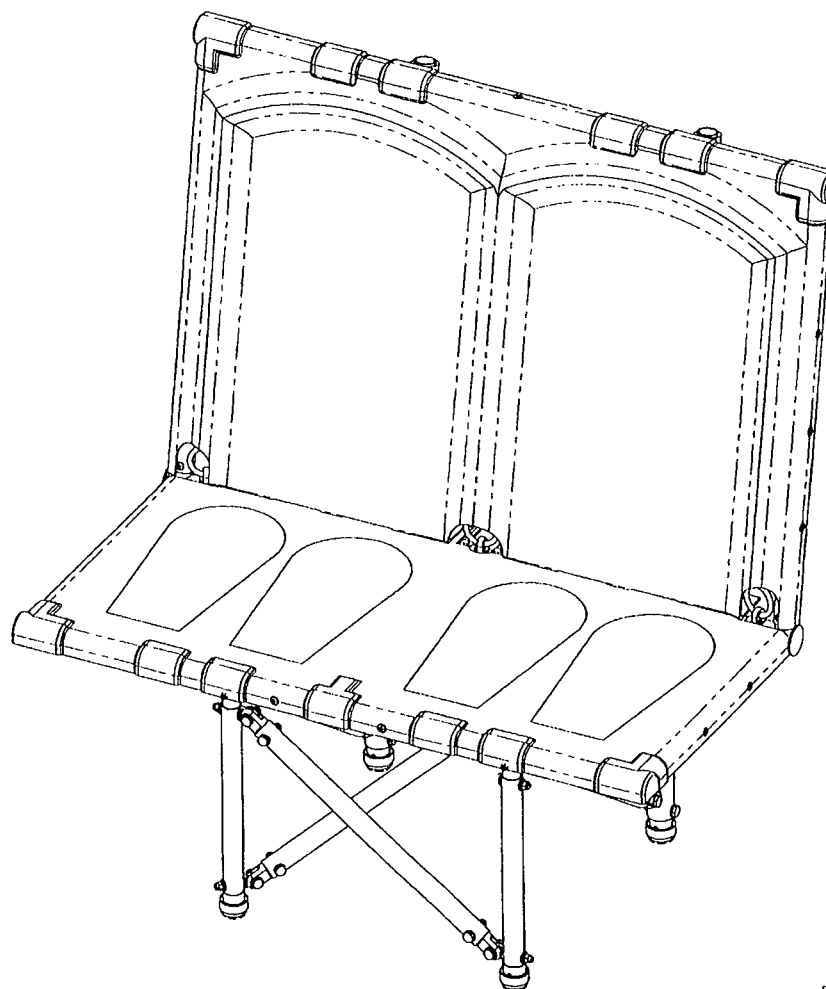
11

112314

729

December 7, 2009 2:31:01 PM

Shop Packet Print

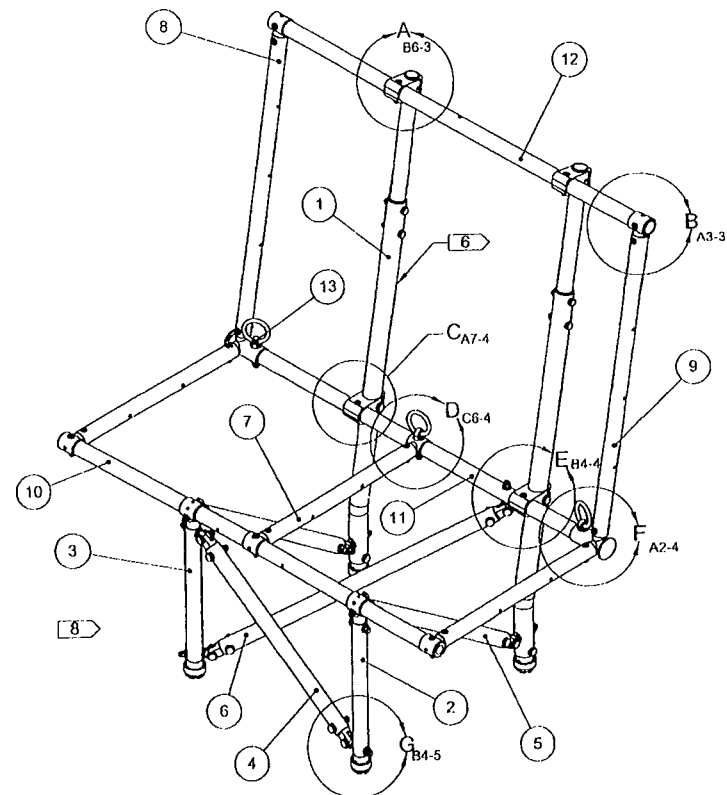


D412-769-043 AFT FACING SEAT ASSY, LH

RELEASED
80709-140

B	NEW HARDWARE	HS	08.06.25
A	NEW ISSUE	HS	08.06.04
REV.	DESCRIPTION	BY	DATE
DESIGN	HS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	HS		
CHECKED	AA	DRAWING NO.	REV. B
MFG. APPR.	AA	D412-769-1	SHEET 1 OF 7
APPROVED	AA	TITLE	SCALE
DE APPR.	AA	AFT FACING SEAT ASSY, LH	NTS
DATE	08.06.25	<small>COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR FOR DISSEMINATION TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. (-043)
1	D3782-045	BACK LEG ASSY	2
2	D3782-041	FRONT INBOARD LEG ASSY	1
3	D3782-043	FRONT OUTBOARD LEG ASSY, LH	1
4	D3783-041	LATERAL BRACE ASSY	1
5	D3783-043	LONGITUDINAL BRACE ASSY	2
6	D3783-045	ANGLE BRACE ASSY	1
7	D3784-041	SEAT SUPPORT ASSY	1
8	D3784-043	SEAT SUPPORT ASSY, LH	1
9	D3784-044	SEAT SUPPORT ASSY, RH	1
10	D3766-1	FRONT RAIL, LH	1
11	D3766-3	REAR RAIL	1
12	D3767-1	UPPER RAIL	1
13	D3792-1	SEAT BELT EYE BOLT	3
14	D3775-1	GUARD	2
15	D3774-1	SEAT BOTTOM	1
16	D3774-3	SEAT BACK	1
17	AN3-5A	BOLT	6
18	AN4-15A	BOLT	2
19	AN45-13A	EYE BOLT	1
20	AN5-10A	BOLT	6
21	AN5-13A	BOLT	2
22	AN525-10R22	SCREW	13
23	AN525-10R24	SCREW	9
24	MS21042L3	NUT	28
25	MS21042L4	NUT	2
26	MS21042L5	NUT	12
27	NAS1149D0332J	WASHER (AN960JD10L)	13
28	NAS1149D0363J	WASHER (AN960JD10)	21
29	NAS1149D0463J	WASHER (AN960JD416)	4
30	NAS1149D0568J	WASHER (AN960JD516)	20



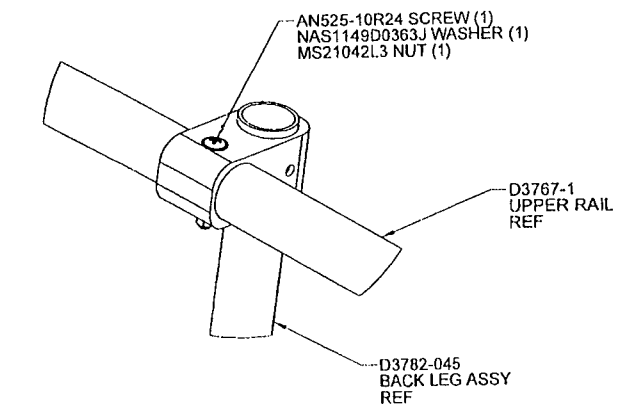
D412-769-043 AFT FACING SEAT ASSY, LH

RELEASED
08.07.09/10

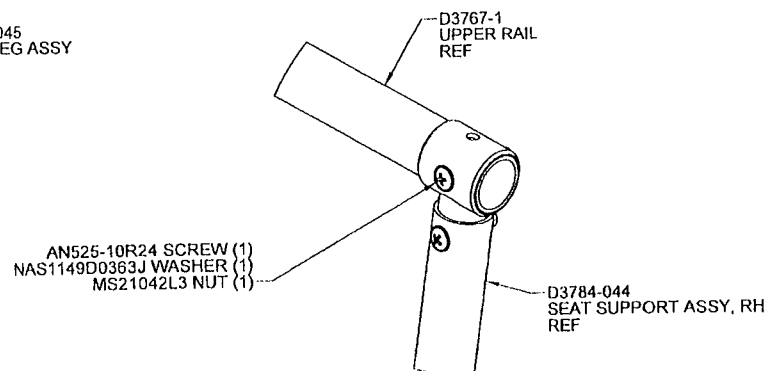
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT ASSEMBLED SEAT "GREY SANDEX" (4.3.5.6) PER DART QSI 005 4.3 PRIOR TO INSTALLATION OF SEAT BOTTOM/BACK (D3774-1/-3). MASK FRONT LEGS PRIOR TO POWDER COAT.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH D2729-1 RED DECAL ATTACHED TO BACK LEG ASSEMBLY (D3782-045)
- 7) WEIGHT: 30.0 lbs
- 8) ITEM 15 (D3774-1 SEAT BOTTOM) AND ITEM 16 (D3774-3 SEAT BACK) REMOVED FOR CLARITY

DESIGN	HS	DART AEROSPACE LTD	
DRAWN	HS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D412-769-1	SHEET 2 OF 7
APPROVED		TITLE	SCALE
DE APPR.		AFT FACING SEAT ASSY, LH	NTS
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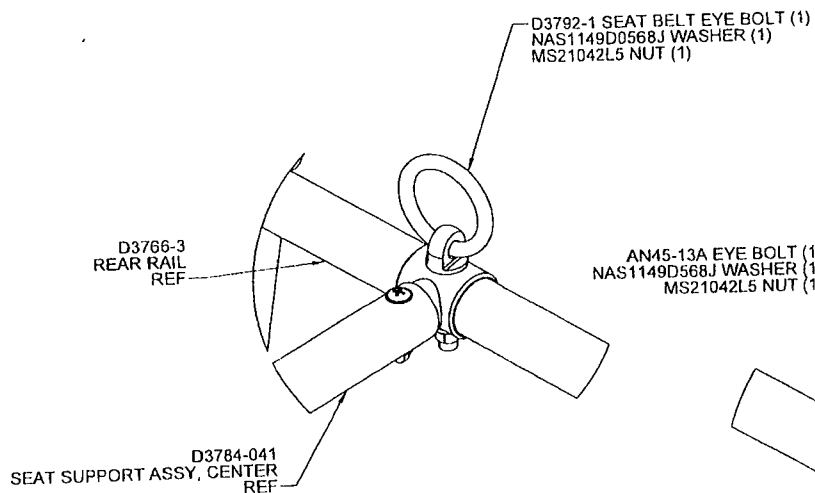
DETAIL A D2-2
UPPER RAIL TO BACK LEG ATTACHMENT
 2 PL



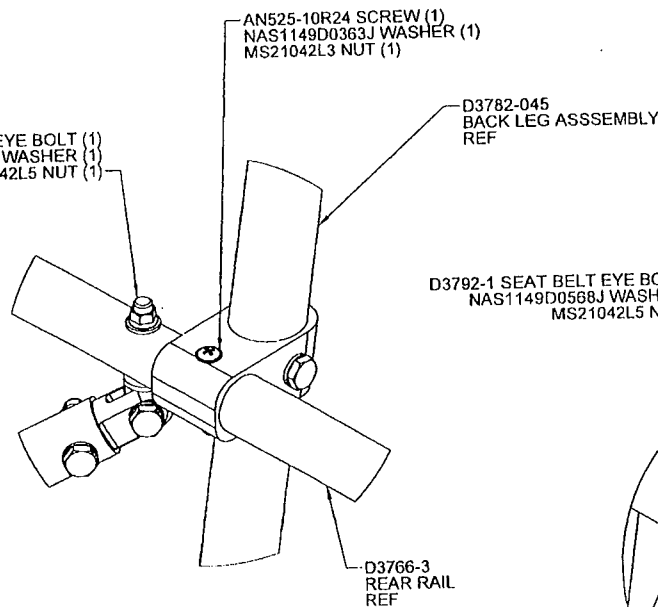
DETAIL B C1-2
SEAT SUPPORT END ATTACHMENT
 5 PL

RELEASED
 07/07/00

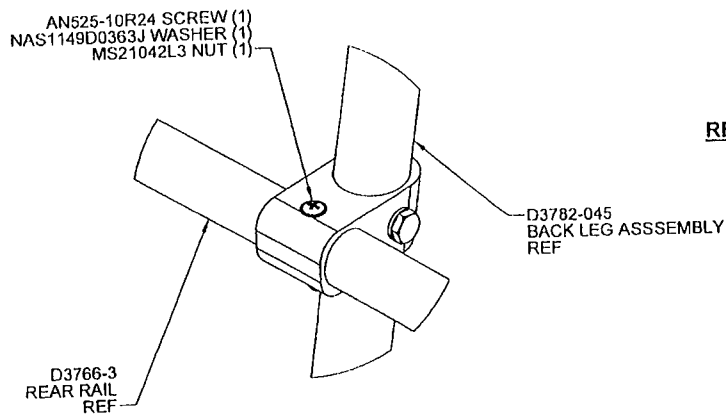
DESIGN	HS	DART AEROSPACE LTD	
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CHECKED	HS	DRAWING NO.	REV. B
MFG. APPR.	HS	D412-769-1	SHEET 3 OF 7
APPROVED	HS	TITLE	SCALE
DE APPR.	HS	AFT FACING SEAT ASSY, LH	NTS
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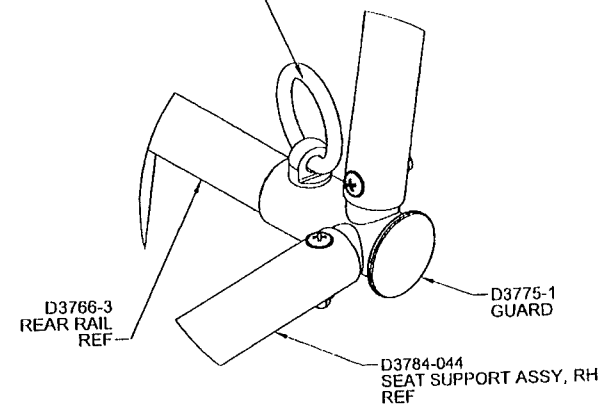
DETAIL D C2-2
SEAT SUPPORT ASSY, CENTER ATTACHMENT



DETAIL E C1-2
REAR RAIL TO BACK LEG ATTACHMENT



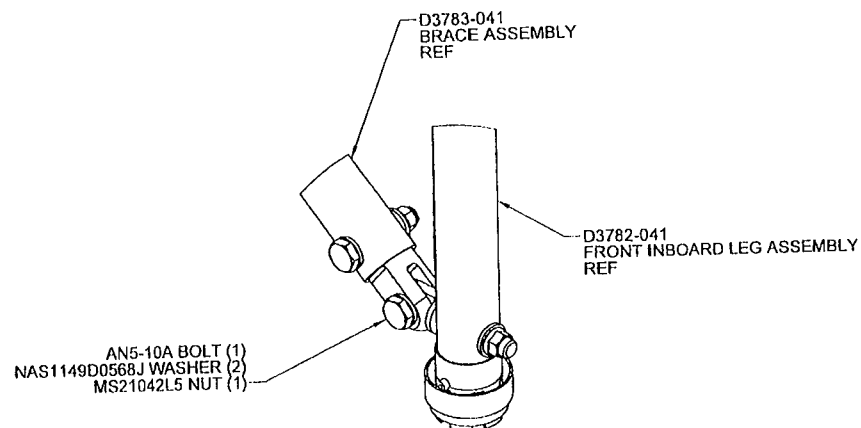
DETAIL C C2-2
REAR RAIL TO BACK LEG ATTACHMENT



DETAIL F B1-2
SEAT SUPPORT ATTACHMENT
2 PL

DESIGN	HS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	HS		
CHECKED	HS	DRAWING NO. D412-769-1	REV. B
MFG. APPR.	HS	TITLE AFT FACING SEAT ASSY, LH	SHEET 4 OF 7
APPROVED	HS	SCALE	NTS
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08.07.2014

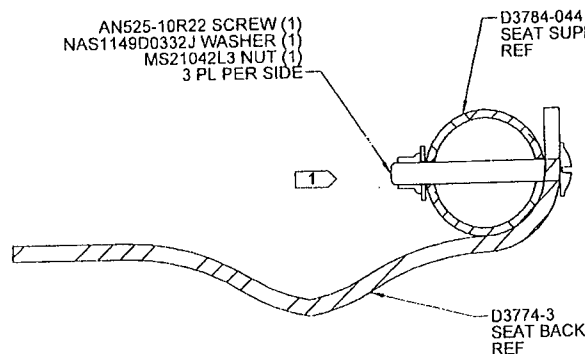
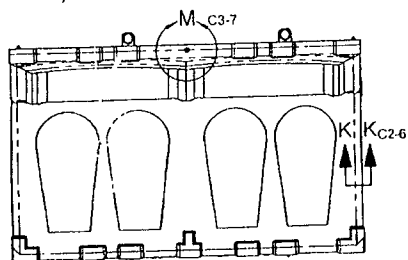


DETAIL G_{B2-2}
BRACE ATTACHMENT
 6 PL

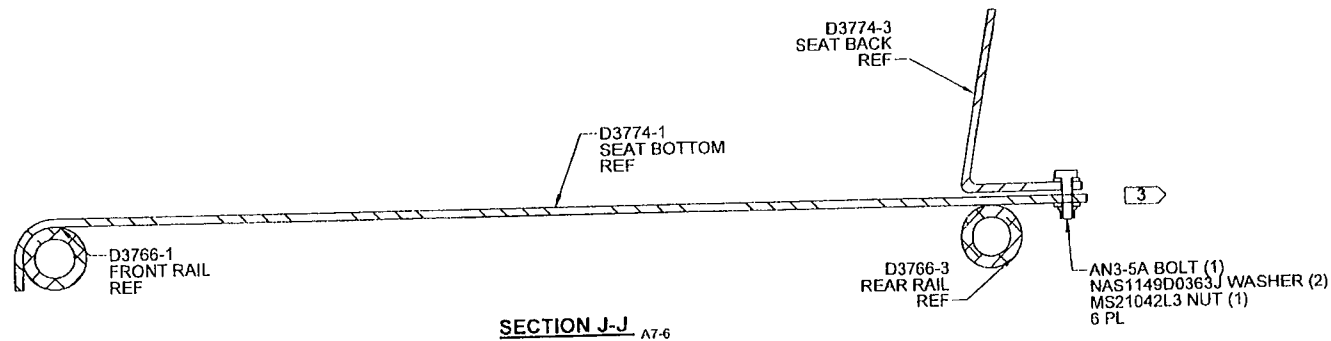
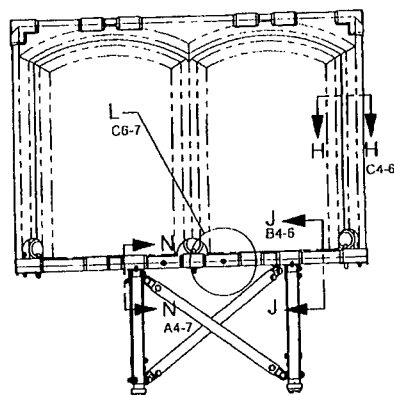
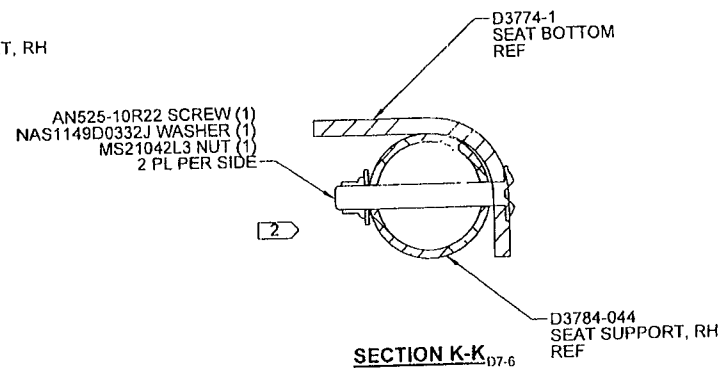
RELEASED
 04-07-07 11/14

DESIGN	HS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN	HS	
CHECKED	AS	DRAWING NO. D412-769-1 REV. B
MFG. APPR.	AS	SHEET 5 OF 7
APPROVED	AS	TITLE AFT FACING SEAT ASSY, LH SCALE NTS
DE APPR.	AS	
DATE	08.06.25	

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SECTION H-H B7-6



SECTION J-J A7-6

- NOTES:
- 1) TRANSFER DRILL $\varnothing 0.201$ FROM SEAT SUPPORTS (D3784-043/-044) TO SEAT BACK (D3774-3) - 3 PL/SIDE
 - 2) TRANSFER DRILL $\varnothing 0.201$ FROM SEAT SUPPORTS (D3784-043/-044) TO SEAT BOTTOM (D3774-1) - 2 PL/SIDE
 - 3) TRANSFER DRILL $\varnothing 0.201$ FROM SEAT BOTTOM (D3774-1) TO SEAT BACK (D3774-3) - 6 PL

RELEASED
10/03/03

DESIGN	HS	DART AEROSPACE LTD	
DRAWN	HS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	HS	DRAWING NO.	REV. E
MFG. APPR.	HS	D412-769-1	SHEET 6 OF 7
APPROVED	HS	TITLE	SCALE
DE APPR.	HS	AFT FACING SEAT ASSY, LH	NTS
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AN525-10R22 SCREW (1)
NAS1149D0332J WASHER (1)
MS21042L3 NUT (1)

D3762-1
FRONT RAIL
REF

D3774-1
SEAT BOTTOM
REF

DETAIL L_{A7-6}
SEAT BOTTOM ATTACH - FRONT DETAIL
2 PL

D3767-1
UPPER RAIL
REF

AN525-10R22 SCREW (1)
NAS1149D0332J WASHER (1)
MS21042L3 NUT (1)

D3774-3
SEAT BACK
REF

DETAIL M_{D7-6}
SEAT BACK ATTACH - TOP DETAIL

AN5-13A BOLT (1)
NAS1149D0568J WASHER (2)
MS21042L4 NUT (1)

D3774-1
SEAT BOTTOM
REF

D3766-1
FRONT RAIL
REF



AN4-15A BOLT (1)
NAS1149D0463J WASHER (2)
MS21042L4 NUT (1)

D3762-041
FRONT LEG FITTING ASSY
REF

D3782-043
FRONT LEG ASSEMBLY
REF

SECTION N-N_{A8-6}
FRONT LEG AND LONGITUDINAL ANGLE ATTACHMENT
2 PL

NOTES:
1) TRANSFER DRILL $\varnothing 0.201$ FROM FRONT RAIL (D3766-1) TO SEAT BOTTOM (D3774-1) - 2 PL
2) TRANSFER DRILL $\varnothing 0.201$ FROM UPPER RAIL (D3767-1) TO SEAT BACK (D3774-3) - 1 PL

DESIGN	HS	DART AEROSPACE LTD	
DRAWN	HS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D412-769-1	SHEET 7 OF 7
APPROVED		TITLE	SCALE
DE APPR.		AFT FACING SEAT ASSY, LH	NTS
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RELEASED
08.07.08

Page 1 of 1

Work order No.:

54295 / 54294

[illegible]

Note: Material pick list must be pre-approved by

Dept. Head: U Date: 10.01.22

&

Purchasing: _____ Date: _____

Close work order	By:	Date:
------------------	-----	-------

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D412-702 REV. E AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-702 REV. 3

REF TCCA STC: SH04-7
REF FAA STC: SR01997NY
REF EASA STC: EASA.IM.R.S.00710

PURPOSE:

Update the D412-702-041A/045A/-041B/-045B kits for compatibility with the Dart D412-769-011 Aft Facing Seat Kit.

CHANGE:

Quantity (1) each of D412-702-111A/-113A is replaced with D412-702-121A/-123A. Also Qty (4) x AN4-27A bolts are added to the kits for compatibility with the Dart seat. When installing the AN4 bolts in the Dart seat, open the Ø0.188" holes to Ø0.257" (see sheet 4 detail J of this service instruction for reference). Alternate nuts added (see flag note 2 & 3, sheet 4). The parts list in section 25.28 (pg. 87) of ICA-D412-702 Rev. 3 and section 7.0 (pg. 38) of IIN-D412-702 Rev. E is amended as follows:

QTY -041A	QTY -043A	QTY -045A	QTY -047A	QTY -049A	PART NUMBER	DESCRIPTION
X					D412-702-041A	Dart 13-Man 3-Point Shoulder Harness Kit
		X			D412-702-045A	Dart 4-Man 3-Point Aft Facing Shoulder Harness Kit

IS:

1		1			D412-702-111A	HARNESS ASSEMBLY (EXISTING)
1		1			D412-702-121A	HARNESS ASSEMBLY (NEW)
1*		1*			D3570-3	BRACKET
1*		1*			D3579-043	SHOULDER HARNESS
4*		4*			MS24694S50	SCREW
4*		4*			AN960JD10L	WASHER
1*		1*			MS21042L3	NUT
1*		1*			D3569-1	DECAL
1		1			D412-702-113A	HARNESS ASSEMBLY (EXISTING)
1		1			D412-702-123A	HARNESS ASSEMBLY (NEW)
1*		1*			D3570-4	BRACKET
1*		1*			D3579-044	SHOULDER HARNESS
4*		4*			MS24694S50	SCREW
4*		4*			AN960JD10L	WASHER
1*		1*			MS21042L3	NUT
1*		1*			D3569-2	DECAL
4		4			AN4-27A	BOLT (NEW)

WAS:

2		2			D412-702-111A	HARNESS ASSEMBLY
2		2			D412-702-113A	HARNESS ASSEMBLY

* DENOTES THAT PART IS INCLUDED WITH ASSEMBLY ABOVE

ADD FLAG NOTES 2 AND 3

CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH DAO # 01-O-01
APPROVED
BY: _____ D. SHEPHERD (DE # 02)
DATE: _____ 09.12.10
CERT. NO.: _____ SH04-7
ISSUE NO.: _____ 3

B	ADD NOTE TO OPEN AN3 HOLES TO AN4	CP	09.11.10
A	NEW ISSUE, NCR 09-068	CP	09.06.30
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>Q</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED	<i>Q</i>	DRAWING NO.	REV. B
MFG. APPR.	N/A	DSI 9469	SHEET 1 OF 5
APPROVED		TITLE	SCALE
DE APPR.		AFT-FACING SEAT UPDATE	NTS
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The parts list in section 25.28 (pg. 93) of ICA-D412-702 Rev. 3 and section 7.0 (pg. 40) of IIN-D412-702 Rev. E is amended as follows:

QTY -041B	QTY -043B	QTY -045B	QTY -047B	QTY -049B	PART NUMBER	DESCRIPTION
X					D412-702-041B	Dart 13-Man 3-Point Shoulder Harness Kit
		X			D412-702-045B	Dart 4-Man 3-Point Aft Facing Shoulder Harness Kit

IS:

1		1			D412-702-111B	HARNESS ASSEMBLY (EXISTING)
1		1			D412-702-121B	HARNESS ASSEMBLY (NEW)
1*		1*			D3570-3	BRACKET
1*		1*			D3579-047	SHOULDER HARNESS
4*		4*			MS24694S50	SCREW
4*		4*			AN960JD10L	WASHER
1*		1*			MS21042L3	NUT
1*		1*			D3569-3	DECAL
1		1			D412-702-113B	HARNESS ASSEMBLY (EXISTING)
1		1			D412-702-123B	HARNESS ASSEMBLY (NEW)
1*		1*			D3570-4	BRACKET
1*		1*			D3579-048	SHOULDER HARNESS
4*		4*			MS24694S50	SCREW
4*		4*			AN960JD10L	WASHER
1*		1*			MS21042L3	NUT
1*		1*			D3569-3	DECAL
4		4			AN4-27A	BOLT (ADD)

WAS:

2		2			D412-702-111B	HARNESS ASSEMBLY
2		2			D412-702-113B	HARNESS ASSEMBLY

* DENOTES THAT PART IS INCLUDED WITH ASSEMBLY ABOVE

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01
APPROVED

BY: D. SHEPHERD (DE # 02)
DATE: 09.12.10
CERT. NO.: SH04-7
ISSUE NO.: 3

DESIGN	<i>Q</i>	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>Q</i>	DRAWING NO.	REV. B
MFG. APPR.	N/A	DSI 9469	SHEET 2 OF 5
APPROVED		TITLE	SCALE
DE APPR.		AFT-FACING SEAT UPDATE	NTS
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Figures 4.8 (pg. 25) of IIN-D412-702 Rev. E and 25.12 (pg. 69) of ICA-D412-702 Rev. 3 are updated as follows:

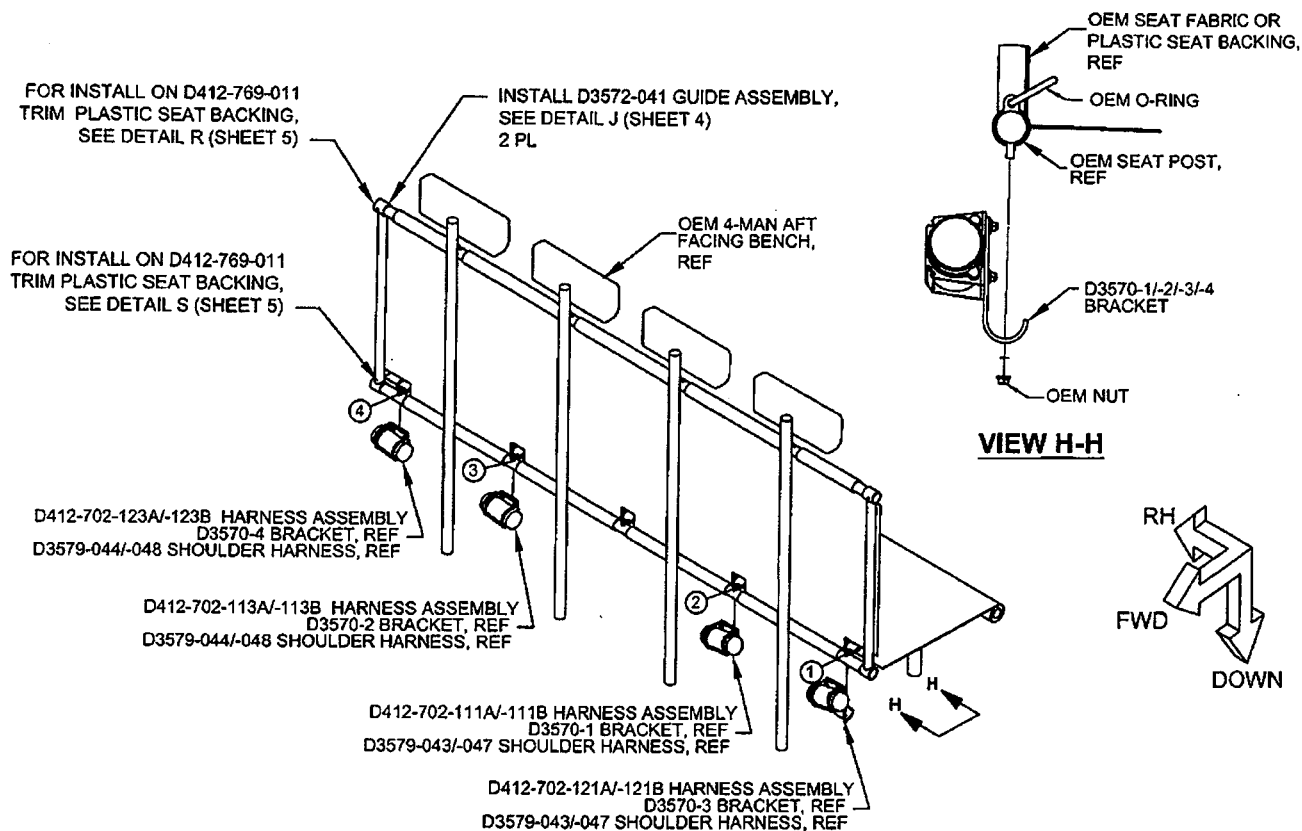


FIGURE 4.8. SHOULDER BELT INSTALLATION
FIGURE 25.12 D412-702-045A/-045B 4-MAN 3-POINT AFT FACING SHOULDER HARNESS KIT

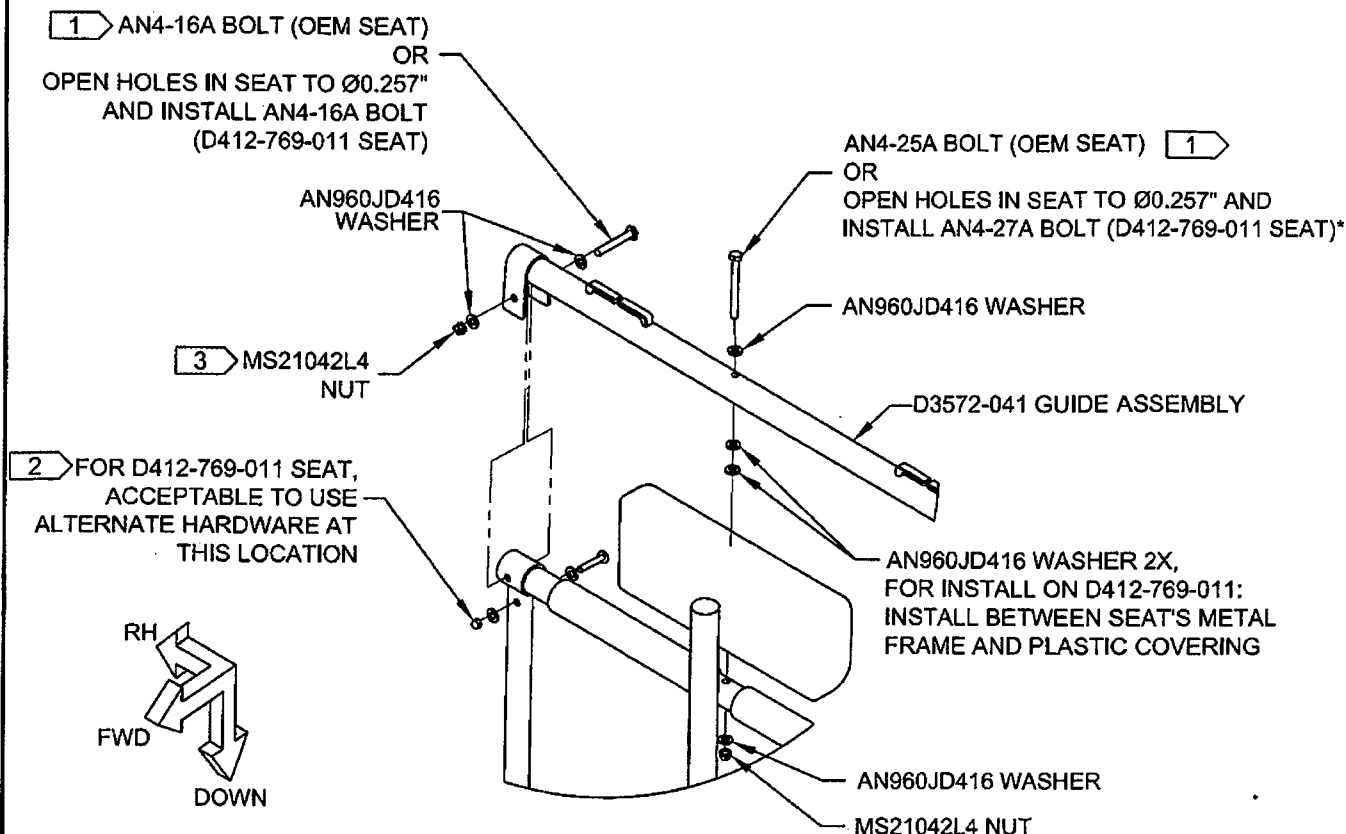
CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: D. SHEPHERD (DE # 02)

DATE: 09.12.10
CERT. NO.: SH04-7
ISSUE NO.: 3

DESIGN	qp	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED	qp	DRAWING NO.	REV. B
MFG. APPR.	N/A	DSI 9469	SHEET 3 OF 5
APPROVED		TITLE	SCALE
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DETAIL J: D3572-041 INSTALLATION
(RH SHOWN, LH OPPOSITE)

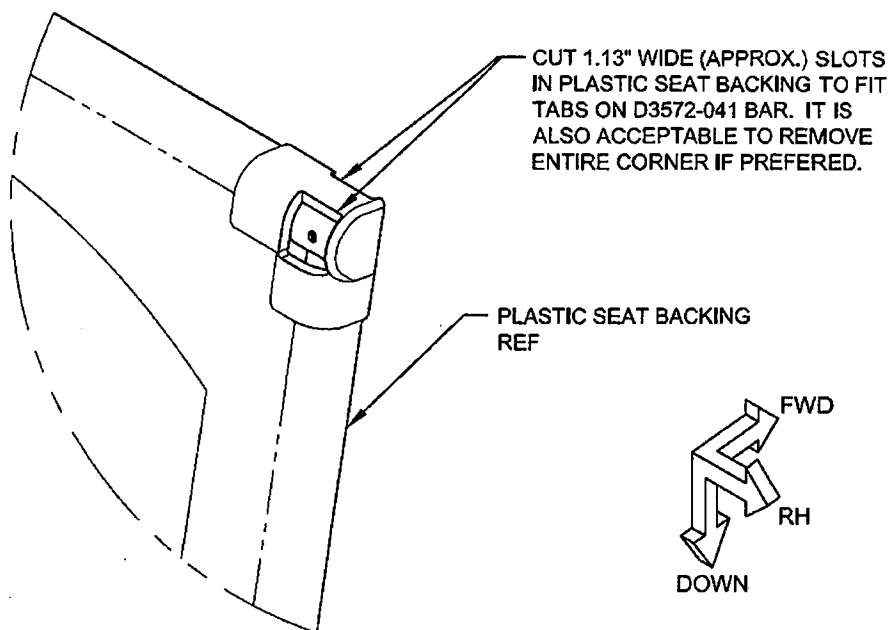
- 1 ACCEPTABLE TO USE LONGER/SHORTER AN4 BOLTS,
ADD ADDITIONAL AN960JD416 WASHERS, OR SUBSTITUTE
AN960JD416L WASHERS TO ENSURE 1.5-2 THREADS IN SAFETY
- Additional AN960JD416/10L
WASHERS ON THE NUT SIDE } 2 ACCEPTABLE TO USE MS51865-6C AS ALTERNATE NUT. IF ALT NUT IS
USED, ADD ~~ONE (1) AN960JD416 WASHER (HEAD BOLT SIDE)~~
TO ENSURE PROTRUDING THREADS MEASURE 0.16 MIN, 0.19 MAX.
(BEFORE NUT INSTALLATION)
- Additional AN960JD416/416L
WASHERS ON THE NUT SIDE } 3 ACCEPTABLE TO USE MS51865-8C AS ALTERNATE NUT. IF ALT NUT IS
USED, ADD ~~ONE (1) AN960JD416 WASHER (HEAD BOLT SIDE)~~
TO ENSURE PROTRUDING THREADS MEASURE 0.20 MIN, 0.25 MAX.
(BEFORE NUT INSTALLATION)
~~ADD ONE (1) ADDITIONAL AN960JD416L WASHER IF REQUIRED.~~

CANADA
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DAO # 01-O-01
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BY: D. SHEPHERD (DE # 02)

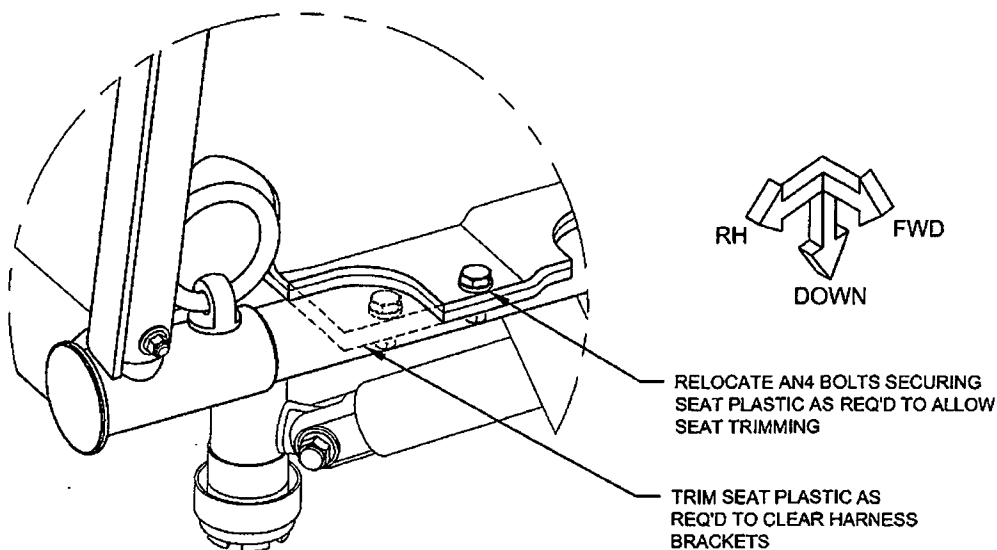
DATE: 09.12.10
CERT. NO.: SH04-7
ISSUE NO.: 3

DESIGN	qp	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	qp	DRAWING NO.	REV. B
MFG. APPR.	N/A	DSI 9469	SHEET 4 OF 5
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DETAIL R

VIEW LOOKING AT FRONT OF SEAT BACKING, TOP-RH CORNER SHOWN (TOP-LH CORNER SIMILAR),
FOR INSTALL ON D412-769-011 ONLY



DETAIL S

VIEW LOOKING AT REAR OF SEAT, BOTTOM-RH CORNER SHOWN (BOTTOM-LH CORNER SIMILAR),
FOR INSTALL ON D412-769-011 ONLY

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: _____
D. SHEPHERD (DE # 02)

DATE: 09.12.10
CERT. NO.: SH04-7
ISSUE NO.: 3

DESIGN	qp	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	qp	DRAWING NO.	REV. B
MFG. APPR.	N/A	DSI 9469	SHEET 5 OF 5
APPROVED		TITLE	SCALE
DE APPR.		AFT-FACING SEAT UPDATE	NTS
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